As noted by the Commission in their NPRM, use of access charges based on Part 36 and 69 costs is problematic with the passage of the 1996 Act and other initiatives to open the local exchange market to additional competition. The Commission notes in their NPRM that the Part 69 rules incorporate implicit support flows and access charges contain misallocations mandated by the Part 36 jurisdictional separations rules.[1] Economic inefficiencies inherent in existing access charges that cannot be sustained in the competitive market include the recovery of non-traffic-sensitive loop costs and port switching costs on a usage sensitive basis and the maintenance of average usage charges that levy disproportionate charges to lower cost customers to support costs of serving high cost customers. With the availability of unbundled interconnection rates based on forward-looking costs which exclude implicit support amounts contained in access charges, implicit support will not be sustainable.

SWBT's current access revenues (1996 annual billed revenue) and switched access rates are summarized in Table 1 below. As mentioned previously, these revenues and rates reflect the recovery of legitimate costs largely assigned to interstate access services through the use of the Commission's Part 36 and 69 rules.

TABLE 1
Southwestern Bell Telephone Company
Summary of Interstate Access Revenue and Rates

Rate Element	1996 Billed Revenue	Current Rates
SLC	$705M	$3.50 - $6.00
CCL	$289M	$.007462
Local Switching	$297M	$.007695
Switched Transport	$71M	$.001847
TIC	$248M	$.006411
Total Switched Access	$905M	$.023415
Special Access	$457M	Facility Based
Total	$2,067M	N/A

[1] NPRM, Para. 6.

III. Effects of Part 36 and 69 Cost Dislocations On SWBT Access Rates

As stated above, the current access rates largely reflect costs that were assigned to access services based on the Part 36 and 69 rules. SWBT has identified several allocations in the Part 36 and 69 process that do not provide a reasonable allocation of costs to access services. SWBT proposes adjustments to reflect a more appropriate allocation of costs to the interstate access elements. Since this docket precedes the upcoming docket concerning separations reform, SWBT proposes that these costs be recovered through public policy rate elements until separations reform is finalized. The specific treatments of the cost allocations identified by SWBT are discussed in more detail below.

To quantify the Central Office Equipment Maintenance and Marketing cost effects, SWBT used 1995 annual separations and access cost data. This data is consistent with data used in SWBT's interstate annual tariff filings. For the COE Circuit Terminations and Interexchange Cable and Wire Facility effects, June 1996 data, annualized, was used. For each change, modifications and comparisons were made to determine Part 36 and 69 effects on interstate access rates.

A. COE Maintenance

Central Office Equipment Expenses are summarized in the following accounts: Central Office Switching Expense-Account 6210, Operator Systems Expense-Account 6220 and Central Office Transmission Expense-Account 6230. Part 36.321(b) requires apportionment of these accounts among the operations on the basis of the separations of investments in Central Office Equipment (COE) Accounts 2210 (Switching), 2220(Operator Systems), and 2230(Transmission), combined. Separation of the expenses based on combined COE, does not recognize the classifications of expenses between Operator Services, Switching and Transmission. Consequently, expenses are assigned to services that do not cause these expenses to be incurred. For instance, local switching expenses are not necessary for the provision of transport services, but nevertheless are assigned to transport services for recovery. A more cost causative approach is to separate the central office expense account based on the separation of the underlying COE investment. Thus, Account 6210-Central Office Switching would be apportioned based on the apportionment of Account 2210, Central Office Switching Investment. Accounts 6220 and 6230 would likewise be apportioned based on the apportionment of the underlying investments. Apportionment of expenses in Part 69 should also be performed based on each Central office expense account's underlying investment or the specific asset being maintained.

Table 2 shows the estimated effects on SWBT interstate access costs if more cost causative allocation procedures are used for Central Office Expenses.

B. COE Circuit - Terminations

The Separations Rules, Part 36.126, requires that Interexchange COE Trunk, Category 4.23, investment to be assigned Message Joint, Interstate Private Line and Intrastate Private Line based on termination counts. However, in the course of developing the basic studies of central office circuit equipment, it is possible to directly identify by category investments associated with dedicated versus shared services. Consequently, assignment of interexchange circuit equipment to dedicated and shared message and private line categories based on the average cost *per termination* by the current Part 36 rules has not provided the most accurate depiction of investments associated with these categories. Within the interexchange circuit equipment costs, all categories except shared message are jurisdictionally pure and could be directly assigned to jurisdictions if this were permitted by the Part 36 rules. For the shared message investment classification, traffic usage factors determine the final jurisdictional allocation.

Table 2 shows the estimated impacts on interstate access costs if the direct assignment procedures described above are used to allocate Interexchange COE investment. The most significant effect of this change is to shift costs from switched transport services to special access or dedicated transport services. This change results in an increase in special access costs of approximately $22.7 million. Additionally, this change would result in an interstate cost reduction and an intrastate cost increase of $1.4 million. Since SWBT is not proposing to adjust intrastate rates or establish an intrastate public policy element in this proceeding, the intrastate cost increase from this change was offset against the Interstate Special Access increase. The amount shown in Table 2, $21.3 million, reflects this offset.

C. Interexchange C&WF

Like Interexchange Central Office Investment, in the course of developing the basic studies of cable and wire investment, it is possible to separately identify by subcategory those costs associated with dedicated versus shared services. However, section 36.156(a) of Part 36 of the FCC Rules dictates that the costs of interexchange cable and wire investment will be assigned to the above categories based on the average cost per equivalent telephone circuit kilometer. Consequently, the assignment of interexchange cable and wire investment to the shared message and private line categories based on average cost per circuit kilometer has not provided the most accurate depiction of investments associated with these categories.

Within the interexchange cable and wire investment, all categories except shared message are already jurisdictionally pure and could be directly assigned to categories and jurisdictions, if it were permitted by the Part 36 rules. For the shared message investment classification, traffic usage factors determine the final jurisdictional allocation.

Table 2 shows the interstate access effects if the direct assignment procedures described above are used to allocate Interexchange cable and wire investment. Like Interexchange COE, the most significant impact of this change is to shift costs from switched transport services to special access or dedicated transport services.

D. Marketing Expenses

As stated in SWBT's Comments, if access revenues are excluded for purposes of allocating marketing expenses, an interstate access cost reduction of approximately $100M would result. The effects on the interstate access elements of the revised marketing expense allocation are shown in Table 2.

E. Summary of Part 36 and 69 Cost Shifts

Table 2 summarizes the cost shifts for the four items discussed above. The total effects on specific access categories and the net effect on the proposed public policy elements are shown. Further discussion regarding the recovery of these changes in costs for the interstate access elements is presented below in the specific section related to the access service element they effect.

TABLE 2
Southwestern Bell Telephone Company
Summary of Part 36 and 69 Cost Impacts

Description	Common Line	Local Switching	Switched Transport	Other Transport	Other	Net Amount To Public Policy
COE Maintenance	($18.8)	$16.0M	($10.2M)	($22.0M)	$1.6M	$33.4M
COE Circuit Terms	$0.2M	--	(21.5M)	21.3M	--	--
IX C&WF	$0.1M	--	($5.0M)	$4.1M	--	$0.8M
Marketing	($51.4M)	($8.9M)	($17.0M)	($22.6M)	($0.4M)	$100.3M
TOTAL	($69.9M)	$7.1M	($53.7M)	($19.2M)	$1.2M	$134.5M

IV. Analyses Supporting SWBT's Plan For Access Charge Reform

A. Common Line Cost Recovery

The Part 36 Rules assign 25 percent of loop and certain Information Origination and Termination costs to interstate services. These costs have been recovered through two rate elements established in the Commission's Part 69 rules: the Subscriber Line Charge (SLC) and the Carrier Common Line (CCL) Charge. The CCL charge is a usage sensitive charge assessed to Interexchange Carriers. SWBT's proposed plan for access reform eliminates the CCL charge and the inherent implicit support it provides from interstate switched access services. SWBT's current CCL charge generates approximately $289 (1996 annual revenue) million of cost recovery. Under SWBT's proposed plan, the cost recovery provided by the CCL charge would be disposed of as shown in Schedule 1.

Schedule 1
SWBT Disposition of Interstate CCL Charge

1.	1996 SWBT CCL Revenue	$289M
2.	Net Part 36 and 69 cost shifts	($70M)
3.	Transfer Long-Term Support Recovery To Federal Universal Service Fund	($42M)
4.	Transfer of Pay Telephone Costs to Nonregulated Services	($39M)
5.	Revenue From Public Policy Element/SLC Change	($138M)
6.	Remaining CCL Revenue	$0M

The CCL revenue displayed above is 1996 annual billed revenues. The Net Part 36 and 69 costs shifts were obtained from Table 2. Long Term Support represents the amount included in SWBT's current CCL rate that is charged to SWBT customers and paid to the NECA Common Line Pool to allow NECA CCL rates to reflect the approximated average CCL rate of Price Cap LECs.[2] Pay telephone are those filed in SWBT's Access Charge Tariff Transmittal 2608, filed January 15, 1997, which reflected the effect of transferring pay telephone services to nonregulated status pursuant to the 1996 Act. The total revenue generated by the Public Policy Element or the SLC is the amount required to be revenue neutral, and has been reduced for all other effects of the Part 36 and 69 cost shifts to Common Line discussed above. This amount would be directly effected by the amount of funding received from the pending universal service fund. Universal service funding will ultimately be determined based on the Commission's adopted Universal Service Rules currently under consideration in CC Docket No. 96-45. Under the assumptions employed by SWBT, at the end of the proposed two year transition period, Single line SLC would increase from the current $3.50 capped

[2] SWBT Annual Access Tariff Filing, Transmittal 2544, Description and Justification, Section 2E

amount to $4.82 per line/month. SWBT's multiline SLC would decrease from $6.00 to $4.82 per line/month.[3]

B. Local Switching

The Part 36 Rules require the allocation of local switching costs to interstate based on Dial Equipment Minutes (DEM). The local switching costs allocated to interstate include two types of costs: traffic sensitive and non-traffic sensitive costs. Currently, all of local switching is recovered on a usage sensitive basis. SWBT's plan proposes recovery of the non-traffic sensitive interstate local switching (i.e., port costs) on a per-line basis. Based on 1995 actual local switching costs, SWBT estimates that the portion of costs currently recovered from the interstate local switching rate is approximately $59 million. The average interstate port charge per line/month, based on 1995 lines (13.9 million), required to recover this cost is approximately $0.35.

Both SWBT's port charge and usage sensitive local switching charges would be adjusted to account for the net effect of the Part 36 and 69 costs shifts shown in Table 2 above. The net usage sensitive local switching rate, accounting for removal of port costs and adjustments for the Part 36 and 69 costs shifts is approximately $0.006378. The development of this rate is shown in Schedule 2.

Schedule 2
Estimate of Traffic Sensitive Local Switching (LS) Rate

1. 1996 Interstate LS Revenue	$297M
2. LS Port Recovery	($59M)
3. Part 36/69 Cost Shifts	$7M
4. Adjusted Revenue (L1+L2+L3)	$245M
5. 1996 Actual Interstate LS MOU	38,412M
6. Adjusted Traffic Sensitive LS Rate (L4/L5)	$.006378

C. Transport and Transport Interconnection Charge (TIC)

SWBT's plan recommends the following treatment for the TIC:

[3] Assumes total SLC revenue of $843M divided by 1996 actual lines (14.6 million lines) divided by 12. Line counts include pay telephone lines which will be assessed SLC effective April 15, 1997.

- Transfer a portion of the recovery from the TIC related to host-remote costs and tandem switched transport costs to tandem switched rates.
- Recover a portion of trunk port and SS7 costs currently included in the TIC from separate rate elements .
- Recover the remainder of costs, which primarily represents costs of serving high cost, primarily rural areas, currently included in the TIC from a competitively neutral public policy element.

1. Summary of SWBT's Analysis of TIC Filed In CC Docket No. 91-213

SWBT filed extensive comments in CC Docket 91-213 which substantiated the TIC as an interim measure to maintain revenues which recover appropriate and legitimate transport costs. The TIC recovers essential investments and expenses required to provide transport service to all customers which reside in a LEC's serving area. Below is a summary of the major components of the TIC and suggested solutions identified in SWBT's 91-213 Comments. For additional details and information, see SWBT's Comments filed on the TIC in CC Docket No. 91-213.[4]

a. Support Lost Under The Interim Rate Structure From High Volume Areas To Offset Interexchange And Exchange Trunk Costs, Including Common Costs, Associated With Serving Low Volume/High Cost Areas Which Encompass Many Rural Serving Areas

SWBT has constructed circuit equipment, trunking facilities, and tandem switching equipment necessary to provide transport service throughout its serving area. SWBT presented data in Docket 91-213 showing that together with independent LECs in its serving area, transport facilities must provide connectivity to 3,304 end office locations. That data showed that purchasers of access had points of presence or were located in 454 serving wire centers. Based on the study, 85% of the transport routes provide transport of traffic to SWBT and independent company offices located predominantly in nonmetro and rural areas. Moreover, SWBT's study showed that 13% of the transport routes carry approximately 91% of the transport minutes.

The transport costs presented in SWBT's comments demonstrated that costs are substantially higher in low volume service areas primarily due to the low traffic densities that exist. SWBT showed that for offices with the lowest transport volumes, the cost per minute of use is approximately ten times greater than the comparable costs for offices with the highest transport volumes. Prior to the

[4] In the Matter of Transport Rate Structure and Pricing, CC Docket No. 91-213, Comments of Southwestern Bell Telephone Company, February 1, 1993, pp. 30-54.

Commission's transport restructure, the costs associated with serving high cost areas were recovered through average equal charge rates. Thus, customers in high volume, low cost areas, provided the support necessary to recover costs associated with serving low volume, high cost service areas. The interim rate structure essentially transferred this support to the TIC.

b. Support To Offset Eighty Percent Of The Interstate Tandem Switching Costs, Including SS7 Cost

The interim transport rate structure adopted by the Commission recovers 20 percent of the tandem costs from tandem users and the remaining 80 percent of tandem costs through the TIC which applies to all transport users. The following points regarding tandem switching are key:

- For low volume transport routes, tandem switched transport services are generally the most economical means for carrying traffic.
- Substantial tandem switching costs will continue to be incurred to provide connectivity between all end offices in SWBT's serving areas.
- Tandem switched transport capacity must continue to be available to handle traffic overflow from dedicated transport facilities.

c. Part 36 and 69 Cost Allocations Which May Be Inappropriate in Light of the Interim Transport Rate Structure

Cost misallocations contribute to the difference between the fully distributed costs using Part 36 and 69 and more economic approach that were taken with the interim transport pricing structure. The Commission has already corrected one such misallocation related to the Part 69 allocation of General Support Facilities (GSF). For SWBT this reduced the TIC by approximately $43 million. SWBT's 91-213 Comments also stated that other possible distorted allocations may exist in light of the interim rate structure and expressed concern about shifting costs to the intrastate jurisdiction.

2. SWBT's Proposed Treatment of the TIC

a. Transfer a Portion of TIC To Common and Dedicated Rates

Currently the TIC recovers certain costs associated with host remote facilities and facilities associated with tandem switched transport services from all switched access customers. Southwestern Bell's proposal recommends that these costs be removed from the TIC and be recovered from increased common transport rates.

i. Host-Remote ($ 14M TIC Reduction)

The current tandem switched fixed and per mile rates do not fully recover host/remote costs that are assigned to Transport services in Parts 36 and 69. These rules do not require the assignment of host-remote costs to special access. Since the interim rates were built based upon special access rates, which do not include host-remote cost recovery, a significant portion of the host/remote costs are recovered from the TIC.

For service to a remote switch, tandem fixed and per mile/per MOU charges apply for use of the facilities from the host to the remote. This structure was ordered by the FCC in its July 23, 1993 First Memorandum Opinion and Order on Reconsideration.[5] The tandem fixed and per mile elements apply to host/remote configurations for both tandem-routed and direct trunk transport customers.

SWBT is able to isolate host/remote costs. This is possible because Part 36 rules require separate categories for central office circuit equipment and cable and wire facilities associated with host/remote arrangements. The Part 36 and 69 host/remote annual costs currently recovered from transport rates are approximately $16 million. SWBT estimates that the current interstate tandem switched transport fixed and per mile charges assessed for these facilities generate approximately $1.6 million in annual revenue. The difference, or approximately $14 million, is the estimated amount that is currently recovered from the TIC.

SWBT recommends the transfer of Host/Remote costs to the Tandem Switching Transport elements. Fixed and per mile charges for tandem switching transport should be increased to recover these costs based on the actual usage and composition of common transport facilities used in host/remote configurations.

ii. Redefined Tandem Switched Transport ($8M TIC Reduction)

The Commission's "interim" bundled per-minute rate structure for tandem-routed traffic, encompasses the entire path needed to transport tandem-switched minutes between the point of presence (POP) serving wire center

[5] Transport Rate Structure and Pricing. First Memorandum Opinion and Order on Reconsideration, CC Docket No. 91-213, 8 FCC Red 5370 (July 21, 1993) at 10-14.

(SWC) and the LEC end office (EO). However, this path utilizes two different, and separate, types of facilities, which should be unbundled for recovery purposes. The bundled structure, priced according to Commission rules, under allocates costs to the tandem route and, as a result, contributes to the TIC. SWBT examined two parts of the tandem route to estimate the magnitude of TIC costs that are associated with the mandated bundled tandem switched structure and pricing rules.

In the first part of the tandem route, between the POP SWC and the access tandem (AT), facilities are actually dedicated, in the same manner as dedicated trunk transport (DTT), to each IXC. Since these are physically *dedicated* facilities, efficient pricing dictates that these should be priced in the same manner as DTT.

In the second part of the tandem route, between the access tandem and the EO, "*common*" facilities are used to carry the traffic of many IXCs. Due to the shared nature of this segment of the network, it is appropriate to price it on a per minute basis, as the Commission has ordered under the interim transport rate structure. However, the per minute rates ordered by the Commission should be modified as follows. First, the current tandem switched transport (TST) per-minute fixed rate is based on one MUX when a DS3 is used. This rate should be increased to reflect another DS3 MUX, since one is needed at the EO and one is needed at the tandem switch. Second, the use of 9,000 minutes of use per voice grade circuit in the TST rate development process does not reflect actual usage on the tandem route. To the extent that actual usage substantially differs from the 9,000 minutes of use assumed in the interim rate structure, actual minutes that more accurately depict actual usage levels in the rate development should be incorporated. Lastly, adjustments should be made to account for differences in air miles from the current bundled structure (using SWC-EO air miles for TST rating) and the unbundled structure (using per minute rates only for the portion between the AT and the EO).

SWBT is in the process of analyzing and quantifying the impact of restructuring tandem switched transport rates as described above. SWBT needs to assemble demand data that accurately depicts TST facilities in use. However, preliminary estimates available to SWBT suggest that the changes described above would increase SWBT's associated TST revenues by approximately $8 million. Consequently, if these changes were made, the TIC could be reduced by a like amount. This still does not make the tandem switching transport rates compensatory for low volume areas, since the underlying rates are still based on special access rates. Special access rates

largely reflect costs associated with serving high volume, primarily metro areas.

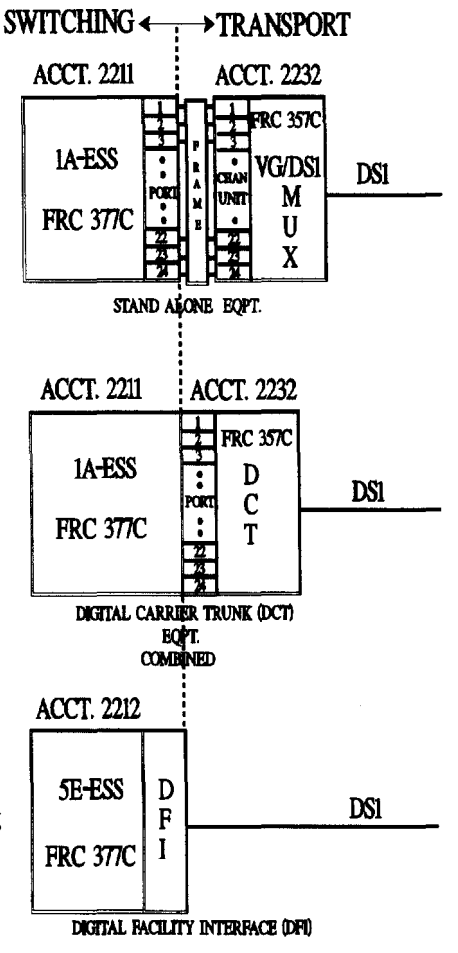
b. Establish New Switched Access Elements to Recover Analog Trunk Port Costs and SS7 Costs

The TIC recovers costs associated with analog end office trunk ports and Signaling System 7 (SS7) facilities. SWBT's proposal recommends that these costs be removed from the TIC and be recovered from users of these facilities through separate rate elements.

i. Trunk Ports ($17 M TIC Reduction)

When a call is carried on a DS1 transport (Direct or Common) or higher facility from an IXC to the terminating local switch, the DS1 signal must be broken down into a form (DSO) that can be processed in the switch. This function can be performed through the use of a standard DS1/Voice Grade multiplexer and 24 analog trunk side ports or through the use of a Digital Carrier Trunk (DCT).

The DCT provides a lower cost alternative when 24 trunks (DSOs) interconnect the switch by combining the functionality of a DS1/Voice Grade multiplexer and 24 analog trunk ports. In the analog switching environment, such as with an 1AESS switch, the costs of performing this function have been accounted for as Central Office Circuit Equipment, USOA Acct. 2232. The analog trunk ports were allocated to interstate by Part 36 and through the Part 69 allocation process assigned to Transport services for recovery. In a digital switching environment, as with the 5ESS and DMS switches, these costs are accounted for as Digital Electronic Switching Central Office Equipment, USOA Acct. 2212. The digital trunk ports pursuant to Part 36 Rules were allocated to interstate and recovered, based on Part 69 Rules, recovered through Local Switching Rates.



This hybrid multiplexing function is one that is not required in the special access environment, consequently, its costs are not reflected in the special access prices. Since special access rates were the basis for the interim Transport rates, these costs are not reflected in the common and dedicated transport rates. While only 7% of SWBT's switches (See Annual Infrastructure Report, ARMIS 43-07) are analog, they serve 46% of SWBT's access lines. SWBT estimates that approximately 3,835 DCTs or a total of 92,040 DSO level trunk ports (3,835 times 24) exist in its network. SWBT, based on investment amounts obtained from the Switching Cost Information System, estimates that the annual costs associated with the dedicated multiplexing equipment is approximately $182.40 per DSO level trunk.

Since the DCT functionally provides a trunk "port" function as described in NPRM (para. 71), these costs would more appropriately be moved to the Local Switching service category. SWBT agrees with the NPRM conclusion (para.72) that non-traffic-sensitive costs should be recovered

from the costs causer via flat rated charges; consequently, LECs should be allowed, not mandated, to recover DCT costs via flat rated trunk side port charges. SWBT estimates that such charges would generate approximately $17 million of cost recovery ($182.40 times 92,040) and would provide a corresponding reduction in the TIC.

ii. SS7 ($7M TIC Reduction)

Signaling systems facilitate the routing of calls between switches. The major components of the signaling system are: (1) Service Switching Point (SSP); (2) Signaling Transfer Point (STP); (3) Service Control Point (SCP); and (4) Signaling Links.

As mentioned above, the Commission ordered that 80 percent of the tandem switching category be recovered in the TIC. Consequently, the portion of the signaling network that is categorized as tandem is recovered by the TIC. Typically, this consists of the STPs. The interstate costs of the SCPs are recovered by LIDB, 800 and other data base charges. The interstate portion of SSPs are recovered from Local Switching rates. The associated signaling links which consist of central office circuit equipment and cable and wire facilities, are assigned by Part 69 rules to the transport category.

SS7 investments included in tandem switching represents approximately $66.7 million. Investment in signaling links is approximately $0.2 million. For SWBT, the separations process assigns approximately 33 percent of these investments or $22 million to interstate services. SWBT estimates that approximately $7 million of interstate annual costs are associated with this investment and are recovered from the TIC.

SWBT's proposal suggests that recovery of SS7 costs, currently recovered from the TIC, should be obtained from new charges, established under the traffic sensitive basket. If separate SS7 rate elements are established, the TIC could be reduced by approximately $7 million.

c. *Assign Remaining TIC to Public Policy Rate Elements*

SWBT's plan proposes to assign the remainder of the TIC cost to public policy rate elements. The Separations Public Policy Element would recover costs currently recovered from the TIC that were assigned by the Part 36 and 69 allocation rules to promote public policy. The Transport Public Policy Element would recover interstate transport costs incurred to serve low volume/high cost areas as well as additional tandem costs which are currently recovered by the

TIC for public policy reasons. As SWBT has convincingly demonstrated, the majority of the TIC represents the recovery of costs associated with serving low density/high cost, primarily rural areas. While the rate structure changes suggested above help to recover a portion of the high rural costs, these changes are not sufficient to provide for the recovery of all the transport costs incurred to serve low volume/high cost areas. The public policy elements will also ensure the continued recovery of embedded capital costs that LECs have incurred to provide the existing ubiquitous transport network.

i. Net impact of Part 36/ 69 Cost Allocations ($54M TIC Reduction)

Table 2 above summarized the impacts of unreasonable Part 36 and 69 costs allocations on interstate access rates. All four of the changes identified reduce the level of switched transport costs and the TIC by a total of $54M annually. As shown in Table 1, these reductions in some cases are offset by increases in costs to other access elements. For costs that do not shift to other access elements, SWBT is proposing that these costs be shifted to the proposed interstate Separations Public Policy Element.

ii. A Significant Portion of Costs Associated With Serving Low Volume/High Cost Transport Routes Are Transferred From the TIC to the Public Policy Element ($118M TIC Reduction)

As discussed previously, SWBT has incurred costs to provide a network capable of providing universal connectivity and quality services in its serving areas. A substantial portion of the central office circuit equipment costs and cable and wire facility costs incurred to operate this network have been recovered from the TIC. The existing averaged rates require low cost customers to pay rates above their respective costs and to enable LECs to recover costs associated with serving higher cost areas and customers. A substantial portion of the TIC represents recovery of such implicit support. LECs will still be responsible for providing universal access and connectivity, especially in rural serving areas where competition will be slower to develop. Without the current implicit support and related cost recovery currently provided by the TIC or a public policy support mechanism, substantial increases to rural access rates would be necessary. To maintain existing networks and quality services, especially in rural areas, LECs must continue to recover their actual costs. Consequently, SWBT proposes the recovery of these transport costs from a Transport Public Policy Element. This element would allow LECs to charge reasonable rural access rates explicitly recovering support flows that are currently inherent in the TIC. SWBT, based on its previously submitted study submitted in CC Docket 91-213, and accounting for other changes proposed by SWBT in

this Docket which recover costs in a more efficient manner, estimates that $118M of the TIC represents the recovery of central office circuit equipment and cable and wire facility costs associated with serving high cost areas.

iii. Recovery of 80 Percent of Tandem Costs Included in the TIC would also be Shifted to the Public Policy Element ($30M TIC Reduction)

SWBT concludes that if certain identified costs were assessed to cost causers, it may frustrate public policy objectives. For example, if SWBT were to pursue cost causation by shifting identified tandem costs from the TIC to tandem users, it would increase SWBT's tandem switched rate threefold. Since pursuing cost causation for tandem costs to the full extent would be politically untenable, SWBT submits tandem costs would more prudently be recovered through a transport public policy element.

The Commission initially ordered recovery of 80 percent of the tandem switching costs from the TIC "in order to ease the impact of a rate structure change on small IXCs."[6] SWBT estimates that 80 percent of its current tandem revenue requirement represents approximately $37M. An adjustment is necessary to remove the SS7 tandem costs for which SWBT has proposed separate recovery. These costs, are approximately $7M. Thus, the net amount of tandem switching cost transferred to the proposed public policy element is $30M ($37M minus $7M).

V. Summary of SWBT's Access Reform Plan

Attachment 1 summarizes all of the changes proposed in SWBT's access reform plan.

[6] Report And Order And Further Notice Of Proposed Rulemaking, CC Docket No. 91-213, released October 16, 1992, paragraph 25.

SWBT Proposed Interstate Access Reform Plan
Summary

Revise Existing Access Rates to Reflect the Removal of Public Policy Costs and Provide for More Efficient Cost Recovery

	(Revenues = $ Millions)								
Description	EUCL	CCL	Local Switching	Switched Transport	TIC	Total Per MOU	Special Access	New Elements	Public Policy
A. Current Revenue	705	289	297	71	248	905	457	N/A	N/A
B. Current Rate	$3.50 - $6.00	$ 0.007462	$ 0.007695	$ 0.001847	$ 0.006411	$ 0.023415	By Facility	N/A	N/A
C. Modifications									
1. LTS, Nonreg Pay Telephone (Note 1)	---	(81)	---	---	---	(81)	---	---	---
2. Part 36/69 Cost Dislocations									
- Modification of COE Maint.	---	(19)	16	---	(10)	(13)	(22)	---	33
- Modification of Term. Counts	---	---	---	---	(21)	(21)	21	---	---
- Modification of Cost/Mile	---	---	---	---	(5)	(5)	4	---	1
- Marketing Expense (Note 2)	---	(51)	(9)	---	(17)	(77)	(23)	---	100
3. SLC Changes	138	(138)	---	---	---	(138)	---	---	---
4. Local Switching NTS Costs (Port $.35 per line)	---	---	(59)	---	---	(59)	---	59	---
5. Increase Transport Facility Rates									
- Host/Remote	---	---	---	14	(14)	-	---		---
- Redefined Tandem Transport	---	---	---	8	(8)	-	---		---
6 Establish New Access Rate Elements									
- End Office Trunk Port Element	---	---	---	---	(17)	(17)	---	17	---
- SS7 Rate Elements	---	---	---	---	(7)	(7)	---	7	---
7. Assign Remaining TIC to Public Policy									
- Low Vol/Rural Facility Support	---	---	---	---	(118)	(118)	---		118
- Tandem Switching Support	---	---	---	---	(30)	(30)	---		30
D. Revised Revenue	843	0	245	93	0	338	437	83	282
E. Proposed Rates	$ 4.82	N/A	$ 0.006378	$ 0.002421	N/A	0.0087900	By Facility	(Note 3)	(Note 4)

(1) CCL is reduced by: **$42M** for LTS, and **$39M** for Payphone

(2) Marketing shift assumes the removal of access revenues from interstate billed revenues for jurisdictional allocation and retention of recovery in a public policy rate element pending separations reform.

(3) The average port charge will be approximately $.35 per line. Separate charges would be established for SS7 and trunk ports.

(4) Three separate public policy elements will be established: (1) Common Line, (2) Separations, and (3) Transport. The Common Line Public Policy element is utilized for transitioning SLC changes and is not included in the public policy element amounts shown in the above table.

Appendix 1
Attachment 1

Appendix 2

Economic Analysis of Depreciation Catch-up Issues

My name is John P. Lube. I am employed by Southwestern Bell Telephone Company (SWBT). I am currently the Director-Capital Recovery for SWBT. In this capacity, I am responsible for the timely and systematic depreciation of all of SWBT's depreciable assets in its five-state territory. This responsibility includes the determination of economic lives and future net salvage percentage for SWBT's depreciable assets.

I graduated from the University of Houston in 1972 with a bachelors degree in electrical engineering. During my 26 years of service with SWBT, I have attended numerous courses and seminars related to capital recovery, accounting, network technology, and network planning and engineering. I have held various positions in Texas, Oklahoma, and Missouri, responsible for network planning and engineering, regulatory and financial accounting, and capital recovery. I have been responsible for SWBT's capital recovery since October 1993. Since that time, I have been an active member of the United States Telephone Association (USTA) Capital Recovery Team and the Society of Depreciation Professionals. I have served as Chair of the USTA Capital Recovery Team since November of 1995.

The following is a detailed economic analysis of several of the depreciation catch-up issues that relate directly to the Commission's deliberation of the Access reform Proceeding.

Depreciation Definitions Requested in the NPRM

In the context of discussion of the under-depreciation quantification, the NPRM asks for the definitions of the following depreciation-related terms: economic lives, economic obsolescence, economic depreciation and actual lives.[1] It is important that these definitional issues are clarified early in the discussion to establish a correct framework. Presented below are these definitions.

The economic life of an asset is the amount of time over which the asset has economic value with respect to its usefulness for providing or supporting the services demanded by customers, and its ability to generate future cash sufficient to recover the original investment in the asset. Economic lives are normally not based on retirements, and are generally shorter than lives that are retirement based. The major forces that affect the economic value of assets are technology, competition, and customers' demands for new services. The impact of these factors on an asset is generally a decrease in its economic life.

Obsolescence has been traditionally linked to physical wear and tear. This wear and tear, or physical deterioration, leads to the ultimate retirement of an asset, thereby, affecting its physical

[1] NPRM, para. 254.

life. Thus, physical obsolescence refers to physical life and yields asset lives that are longer than economic lives. This is because physical deterioration is a function of age, use, and exposure to destructive elements rather than decline in value.

By contrast, economic obsolescence is the decline in an asset's value caused by the introduction of superior technology (functional obsolescence) or competitive alternatives. Either technological superiority or competition can cause customer migration from the incumbent LECs' existing facilities. In addition, competition accelerates the introduction of superior technology. Such loss in usage or functionality does not affect the physical deterioration of the asset. Without customers purchasing the services supported by the technology, however, the future cash-generating capabilities of the asset are reduced or eliminated.[2] Economic obsolescence reduces the asset's economic value and, therefore, reduces the economic life of the asset.

Economic depreciation is often described as a periodic appraisal of an asset's market value, and a corresponding reduction of its net book value down to its market value. In an accounting sense, economic depreciation is simply the recognition of the cost of an asset over its economic life. The reason to use economic depreciation is because the objective for depreciation is complete recovery of the asset by the time it no longer has any economic value.

The economic rate of recovery (i.e., the economic depreciation rate) throughout the useful life of the asset does not need to be and should not be erratic even though there may be annual variations in the asset's decline in economic value. This premise is supported by the American Institute of Certified Public Accountants (AICPA), which defines depreciation as:

> a system of accounting which aims to distribute the [cost of assets] over the estimated useful life of the [assets] in a systematic and rational manner. It is a process of allocation, not of valuation.[3]

"Accounting for Public Utilities" likewise offers support, as follows:

> It is commonly assumed for accounting purposes that consumption [i.e., the decline in economic value] occurs evenly over the asset's productive life, i.e., on a straight-line basis.[4]

The term actual life can be used to describe either physical life or economic life. The actual physical life of the asset is that period of time extending from the date of its installation to the date of its physical retirement. Various forces, including technology and competition, reduce the actual value of an asset before the end of its physical life. Therefore, the actual economic life of an asset is the period of time over which the asset has value. Thus, actual economic lives are utilized to determine economic depreciation rates. They are also used to calculate past under-depreciation (i.e., a reserve catch-up amount), as described later.

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[2] The economic value of the asset can also decline without the loss of customers when the marketplace applies downward pressure on prices.

[3] Accounting Terminology Bulletin, No. 1, AICPA, August 1953, par. 56.

[4] Hahne and Aliff, op. Cit., pages 6-7. (emphasis added)

Balance Between Customer and Shareholder Risk

The NPRM at paragraph 267 invites parties to address the appropriate balance between customer and shareholder risk entailed in the shift to a more competitive regulatory policy. In considering this opportunity for parties to comment, the FCC must first recognize its implicit responsibility to LECs under the "obligation to serve" and "readiness to serve" mandates. This responsibility includes the return of previously invested capital and a fair return on that investment until recovery is completed. Thus, the original capital loaned to the firm by investors should be fully recovered.

Key steps needed for incumbent LECs to be permitted the opportunity for this full recovery are the establishment of an amount of past under-depreciation of plant installed under the earlier regulatory regime (i.e., a depreciation catch-up) and an amortization of that catch-up. Under this earlier regime, customers got a break for many years because the postponement of capital recovery into the future kept prices lower. This past regulatory depreciation policy has created a current deficiency which must be dealt with during the transition to the new competitive environment. The catch-up needed to offset the current deficiency should not be a shareholder risk. It is clearly the responsibility of the customers that benefitted from the lower prices in the past.

Further, LECs have always advocated a need to manage its business, including capital recovery. If the LECs are given a reasonable opportunity to recover the depreciation deficiency associated with the past investments and depreciation, there should be no reason for customers to bear the risk of <u>future</u> LEC investments. ILEC shareholders should assume the entire risk of future ILEC plant investments. The risks and rewards of competition belong to shareholders. The regulatory obligation associated with <u>past</u> investments and regulatory decisions remains. In the case of depreciation, the obligation to address past under-recovery remains and should be borne by the customers that received the benefits of the past under-depreciation

Calculation of Catch-up Amounts

SWBT calculated the amount of its past under-depreciation (i.e., a depreciation reserve catch-up) using a standard theoretical reserve calculation. The specific theoretical reserve calculation utilized was the one prescribed by the FCC in its depreciation study procedures.[5] Copies of the Schedule C presentations for each of SWBT's states, as referenced in the Commission depreciation study procedures, are attached.

This theoretical reserve calculation is a measure of the adequacy of past accounting allocations of cost, assuming straight-line depreciation. The theoretical reserve is not a calculation of what the reserve should be based upon other methods of economic valuation, such as those using the past and future cash flows attributable to the plant, or the past and future replacement values of the plant. In this sense, SWBT's catch-up calculation is a reasonable yet conservative estimate of the past under-depreciation problem.

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[5] See, e.g., "The Federal Communications Commission Depreciation Study Guide 1996," pp. C-1 and C-7.

The size of SWBT's depreciation reserve catch-up also necessarily presumes that ongoing depreciation is corrected (i.e., future depreciation is based upon the same economic lives used in the historical theoretical reserve calculation). Absent this change to economic lives for future depreciation, additional under-depreciation would be accumulated each year.

Specifically, the depreciation reserve catch-up is the difference between the theoretical reserve and the booked depreciation reserve. The theoretical reserve is often characterized as the level of reserve that would exist at a point in time if the correct lives and net salvage parameters had been used for depreciation from the beginning. To arrive at the theoretical reserve level, the calculation essentially subtracts the future amounts that should be added to the depreciation reserves (i.e., the annual depreciation accruals) from the total value of the plant to be depreciated.

Economic theoretical reserve and reserve catch-up calculations were performed for each depreciable asset category for each of the five SWBT states. The theoretical reserve is based upon the appropriate economic lives and net salvage parameters for each asset category, consistent with SWBT's external financial reporting. The theoretical reserves were calculated as of December 31, 1996, using estimated end-of-year 1996 investment levels. The booked depreciation reserve levels, on an FCC-reporting basis, were also estimated for the end-of-year 1996.

The difference between the theoretical reserve and the book reserve as of December 31, 1996 is the depreciation catch-up amounts for each category. For a specific category, the calculated theoretical reserve can be smaller than the booked reserve amount. In such a case, a booked reserve surplus would result for that specific category. Surpluses were properly reflected as reductions to the total catch-up amounts presented here. Individual state totals were then summed to the five-state SWBT total.

The amount of the depreciation reserve catch-up, determined using the exact procedures and formulas outlined by the Commission's depreciation study guide methods, is approximately $1.8 billion on an unseparated (intrastate plus interstate) basis. The interstate portion of this amount is approximately $463 million. If that interstate amount were utilized to establish an amortization over five years, the amortization would be approximately $93 million per year for SWBT.

The Depreciation Catch-up Amounts Used are Conservative

As described by Strategic Policy Research (SPR) in "The Depreciation Shortfall," the method of quantifying past under-depreciation used by SWBT and other price cap LECs results in an amount that is smaller than the more theoretical reserve catch-up amounts calculated by SPR.[6] Using either the forward-looking replacement cost models analyzed by SPR or the more conservative theoretical reserve method for the incumbent LECs presented by USTA, the amount of past under-depreciation would be smaller today if longer lives had not been prescribed in the past to keep prices lower and delay capital recovery.

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[6] The Depreciation Shortfall, Strategic Policy Research, Attachment to USTA Comments, CC Docket 96-262, filed January 29, 1997.

Amortization Period

In the NPRM, the Commission also asked what amortization period, if any, should be used to eliminate past under-depreciation deficiencies.[7] SWBT proposes an amortization period in the range of three to five years. The amortization period should be less than the composite economic remaining lives of the incumbent LECs' embedded plant categories with an under-depreciation problem to allow the past under-depreciation to be eliminated in a timely manner. SWBT's composite average remaining life for these asset categories is approximately seven years. Past regulatory amortizations of reserve deficiencies recognized by the Commission generally have utilized periods of three to five years, though some amortizations have been shorter.

Remaining Life Methods and the Regulatory Focus on Physical Retirements

The NPRM suggests that the Commission's remaining life techniques provide incumbent LECs with the ability to recover their investment over the expected remaining life.[8] The NPRM states that when remaining lives change through the advent of new technology, "a LEC has the ability to request revised depreciation rates and recover its investment over the expected remaining life."[9] The NPRM is accurate with respect to its description of remaining life techniques. The fact that LECs utilize remaining life techniques is not sufficient, however, to ensure that capital recovery has occurred.[10]

The ability of incumbent LECs to recover their capital under remaining life methods depends on the willingness of regulators to grant appropriate depreciation lives and the opportunity to receive the revenues to cover the increased depreciation expense. During the period between divestiture and the advent of price cap regulation, the Commission did not allow adequate depreciation rates, even under remaining life methods. Also, all parties were well aware that the mandatory implementation of price cap regulation for the largest LECs would result in changes in depreciation expense being endogenous. In other words, interstate prices could not be increased to cover any depreciation expense increases. Even if prescribed depreciation lives had been adequate for timely depreciation, the revenues to cover those expenses would not have existed.

The NPRM asserts that "depreciation reserve deficiencies occur when actual plant retirements occur sooner than the accounting system anticipates."[11] In this context, the "accounting system" is the process of building up the accumulated depreciation reserve with annual depreciation expense, such that the full amount of the plant has been accrued in the reserve by the time the plant is retired.

The Commission's prior significant reliance on plant retirements in analyzing the adequacy of depreciation, and prescribing depreciation lives and rates to be used in the future should be

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[7] NPRM, ¶ 269.
[8] NPRM, ¶ 251.
[9] NPRM, ¶ 251.
[10] See "Implications of Technology Change and Competition on Local Exchange Carriers," by A. J. Poitras and L. K. Vanston, TFI, Attachment D, USTA Reply Comments, CC Docket No. 94-1, filed March 1, 1996.
[11] NPRM, fn 344.

modernized to reflect the current environment.[12] It is a fact that a reserve deficiency can exist even before retirements begin to occur. If the economic value of plant is less than its net book value (i.e., the gross booked amount less the accumulated reserve amount), then the reserve for that plant is already deficient. This condition can exist simply because economic value can, and most often does, decline before physical retirements occur. The well-known industry text, "Accounting for Public Utilities," agrees with this assessment:

> Nonphysical causes [for the depreciation of assets] are likely to be present long before direct evidence of their existence appears. ... Therefore, any obsolescence must be reflected in depreciation provisions [i.e., lives and rates] even if it has yet to cause any retirements. Thus, future events are to be anticipated and reflected in depreciation rates. Nonphysical causes ... often do not receive recognition in the [regulatory] ratemaking process until after they have caused retirements."[13]

For a particular technology, such as copper cable, the consequences of the Commission's reliance on plant retirements are that: (a) regulated lives are overstated throughout most of the technology's life span because the relatively sparse retirements throughout this period suggest a much longer physical life than the actual economic life of the technology; (b) reserve deficiency is accumulated throughout most of the life span of the technology; (c) when the heavier retirements concentrated toward the end of the life span of the technology[14] do occur, the significant reserve deficiency that has been accumulated is now visible in the accounting system; and (d) the incumbent LECs are forced to eliminate this deficiency through a catch-up mechanism, e.g., an amortization. If the Commission allows the incumbent LECs to depreciate their networks using economic lives rather than retirements-based lives, including a catch-up of the reserve deficiency that already exists, then the incumbent LECs will have a reasonable opportunity to recover their investment before the marketplace makes this recovery impossible. To fulfill its end of the regulatory social contract, however, requires that the Commission allow a specific public policy rate element to recover these prior costs.

Evidence from History

The following table presents the recent history of SWBT's requests for additional capital recovery from both the FCC's perspective (i.e., the amount of capital recovery improvement allowed by the FCC) and SWBT's perspective (the amounts of additional capital recovery SWBT believed the then-current FCC rules and procedures should have allowed).

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[12] The Commission's 1996 Depreciation Order described the need for a comprehensive review of the Commissions's depreciation rules. Memorandum Opinion and Order, FCC 96-485, released December 22, 1996. **[Olson: fix cite, based on order provided by Capital Recovery]**

[13] Robert L. Hahne and Gregory E. Aliff, Accounting for Public Utilities, Times Mirror Books, 1995, page 6-10.

[14] This phenomena is known in depreciation analysis as an "avalanche" of retirements, signalling the final and sudden demise of the old technology. See "Implications of Technology Change and Competition on the Local Exchange Carriers, by Adrian J. Poitras and Lawrence K. Vanston, Technology Futures, Inc. Attachment D, USTA Reply Comments, CC Docket No. 94-1, Fourth FNPRM, filed March 1,1996., pp. 4-6 and Appendix B, pp. 7-9.

FCC Depreciation Prescriptions Applicable to SWBT
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Represcription Year	FCC Order	SBC Proposal (Requested)	FCC Prescription (Allowed)
1986	FCC 86-603	$575	$152*
1989	FCC 90-44	$207	($85)
1992	FCC 93-40	$115	$79
1995	FCC 96-22	$232	$70

* Includes a reserve deficiency amortization in Oklahoma only

The above table demonstrates the differences in perspectives held by the regulator and the regulated firm and the effect of the depreciation represcription process in delaying into the future the recovery of prior ILEC capital investments.

Regulated Historical Costs Versus Costs Not Reflected in Cost of Service Versus Forward-Looking Costs

The NPRM suggests that telecommunications is a declining cost industry and that as a result, a forward-looking network will be less costly to operate than an embedded network. The NPRM further states that "some portion of the deployed equipment is arguably under-depreciated by an amount equal to the difference between the current net book value and the forward-looking replacement cost of the depreciable plant."[15] While SWBT agrees that this comparison in the above quote yields a reasonable estimate of the incumbent LECs' under-depreciation amounts, further clarification is warranted.

The term "cost" itself needs some clarification. The cost of a network can be considered to be: (1) its initial cost; (2) the current un-depreciated amount associated with its initial cost; (3) the annual depreciation costs (i.e., depreciation expense) associated with the network; (4) the annual revenue requirement (i.e., cost of service, as defined by expenses, taxes and return on net investment or ratebase; or (5) the annual revenue requirement as defined by or limited by the current price cap rules.

First, consider the initial cost of the network. Given the trends of the past, the initial cost of a forward-looking replacement network could be expected to be less than the initial cost of the original cost of the actual network. This is because the actual embedded network has evolved over the years to satisfy customers' changing needs (with respect to amount, location and other attributes), using the industry's changing technologies. By contrast, a hypothetical forward-looking

[15]NPRM, ¶ 253

network, installed to meet only current needs, would not have the same facilities in the same places as the embedded network. By ignoring all customer demands of the past, the replacement network should be more efficient than the actual network. Also, the forward-looking network is "able" to use only those technologies that provide the least-cost solutions today, not in the past. Thus, where unit costs are declining in an industry, a replacement network is more cost-efficient than the actual network.

Second, consider the un-depreciated cost of the network. The un-depreciated portion of the actual network's initial costs is its net book value. The un-depreciated cost of the forward-looking network is its initial cost, since it is assumed to be entirely new. If the net book value of the actual network is larger than the initial cost of the forward-looking network, then, from an economic perspective, the actual network is under-depreciated by an amount equal to that difference. Strategic Policy Research has addressed this difference in its report, "The Depreciation Shortfall."[16] Had past regulated depreciation been based on economic value, rather than plant "mortality" (i.e., retirements), the net book value of the actual network would be approximately the same as the initial cost of the forward-looking network (i.e., there would be little or no under-depreciation problem).

It must be emphasized that the incumbent LECs' need for capital recovery is in no way limited to only the lower replacement cost of a forward-looking network. Instead, the needed capital recovery is still the current net book value of the actual network. The incumbent LECs' investors provided the original capital used to purchase the actual network. While the investors' return on investment was limited by ratebase rate-of-return regulation, this regulatory regime also provided an implicit guarantee of eventual return of investment through depreciation and the inclusion of that depreciation in regulated prices.[17] For the recovery of capital, invested during the old regulatory paradigm, to be complete, the full amount of the current net book value still must be depreciated and included in some price mechanism(s).

The NPRM further acknowledges that a regulatory cause for a difference between actual costs and forward-looking costs may be under-depreciation.[18] It is not clear whether this reference is to an investment type of cost (i.e., initial cost or net book value), or to the three types of annual costs service described above. If the reference is to investment cost, the necessary recovery of this difference is the under-depreciation amount included in the discussion above. If, instead, this refers to annual costs (e.g., depreciation expense or revenue requirements), further comment is required:

1. Past under-depreciation has not only left the net book value of the embedded plant larger than the economic replacement cost of that network, but it has also caused past annual depreciation

[16]"The Depreciation Shortfall," Strategic Policy Research, USTA Comments filed on this date in this docket.

[17]In the ¶ 250, the FCC states: "in a monopoly environment, there were no competitive providers that might prevent an incumbent from eventually recovering its entire investment [by] the end of the prescribed [life]."

[18] NPRM, ¶250.

expenses and annual revenue requirements to be understated,[19] past prices to be understated, and past regulatory-accounting earnings to be overstated.

2. Price cap rules have exacerbated past under-depreciation because expense increases from any depreciation represcriptions since 1990 have been endogenous under price caps; i.e., these increases in booked depreciation were not only inadequate, but they were also not allowed to flow into prices under these rules.

3. Even if the cost difference related to past under-depreciation is eliminated (e.g., amortized) and separately recovered through some mechanism, it is still necessary for the going-forward depreciation expense for the embedded network to be economic, for without such, a new under-depreciation problem will be accumulated in the future.

4. Even if future access prices were set using a forward-looking network (a hypothetical network, whose initial costs are less than the partially depreciated net book costs of the actual network), it is also necessary for forward-looking annual costs to include economic depreciation and the past under-depreciation amounts described above (and separately recovered through some mechanism). At the point in time when the depreciation catch-up amount has been fully recovered, forward-looking annual costs should still include economic depreciation.

Possibility of Further Reducing Access Rates After Amortization

The NPRM at paragraph 268 suggests that interstate access prices may be further reduced after the depreciation catch-up amortization is completed. The implications of this suggestion is that the expiration of the catch-up amortization and the removal of the specific rate element designated for such capital recovery is not a sufficient reduction in overall charges.

This implication is false. SWBT has performed detailed empirical analysis on this issue. SWBT's analysis indicates that the completion of a depreciation catch-up amortization does not reduce the regulated cost of service amounts. This results from the requirement that recognition of a catch-up amortization (based on economic lives) is simultaneous with the use of the same economic lives in ongoing depreciation rates. For SWBT, the future depreciation expense increases[20] cause an increase in revenue requirement that more than offsets the reduction in revenue requirements caused by the lowering of ratebase by the depreciation catch-up amortization. This result makes sense.

Typically in revenue requirement calculations, when considering depreciation rate changes, the expense effect is larger than the ratebase effect. In fact, if this were not the case, there would

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[19]Revenue requirements are, essentially, expenses, including some taxes, return on net investment (ratebase) and income taxes on the return. Even though net investment (original investment less accumulated depreciation) was higher in the past than it would have been under economic depreciation, the resulting higher return and income tax amounts were more than offset by lower uneconomic depreciation expense, causing overall revenue requirements to be lower.

[20]These future depreciation increases recognize both the shorter economic lives and the higher reserve levels that reflect the full completion of depreciation catch-up amortizations.